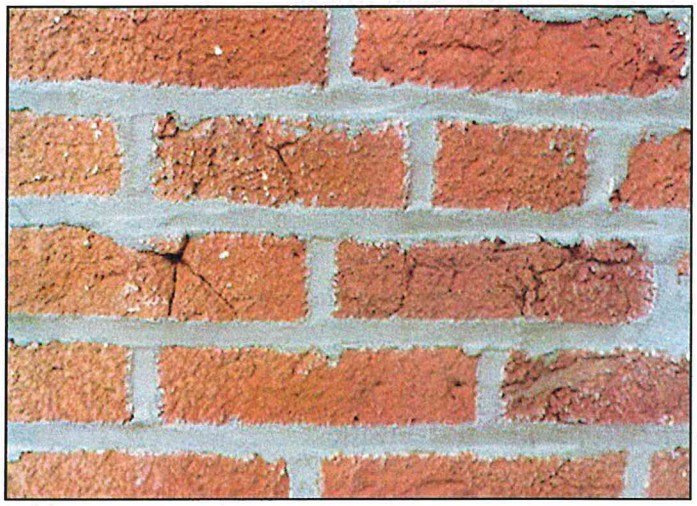
1.0 MATERIALS, BRICKWORK AND MASONRY

POLICY

When repair of masonry mortar is needed, use a soft mortar. Portland cement, a harder mortar, was not in general use before the 1910s. It does not allow moisture to pass through, causing brick to crack and break when it can't expand and contract with the temperature fluctuations. Sandblasting is extremely abrasive to masonry surfaces and is therefore an inappropriate cleaning treatment. Low pressure water cleaning and the use of soft mortar mixes are best for brick dwellings.



Abrasive cleaning and repointing with inappropriate mortar removes the exterior "crust" and can lead to deterioration (above) and spalling (below).

DESIGN GUIDELINES FOR BRICKWORK AND MASONRY

1.1 Retain and preserve historic brick and masonry elements, including walls, chimneys, foundations, and retaining walls. Preserve masonry elements that are character-defining features of the building or property.

1.2 Maintain and protect historic brick and masonry elements through appropriate maintenance, cleaning, and repair methods as needed. Remove vegetation and vines from masonry to prevent structural or moisture damage.

1.3 Repair and restore historic masonry elements, rather than replace.

1.4 Replace in kind if deteriorated or damaged beyond repair.

1.5 Clean historic masonry only with low-pressure water washing and mild detergents formulated for the specific application.

1.6 Sandblasting and other abrasive cleaning methods shall not be used.

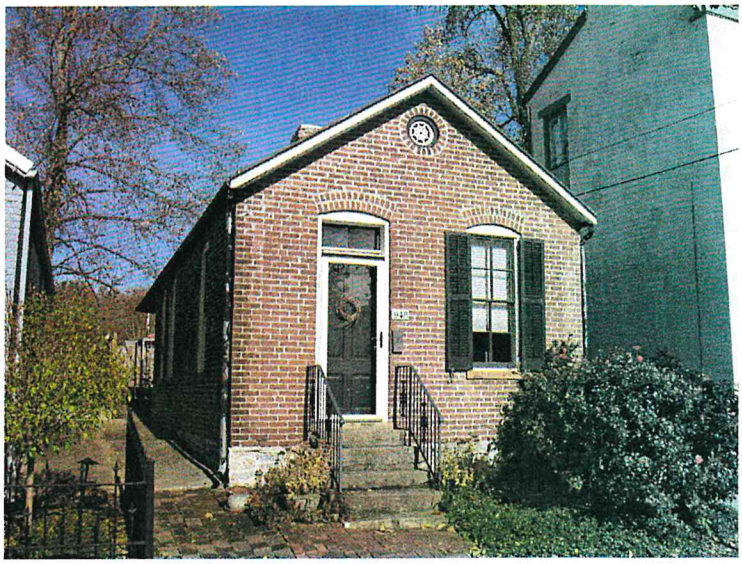
1.7 Water-repellant sealers are generally not appropriate because they may trap moisture, causing deterioration.

1.8 For repointing, use only mortars that are compatible with historic mortars in color, strength, vapor permeability, and joint finish or surface tooling. Modern high-PSI mortars and Portland cement can cause damage to softer brick

1.9 Use only hand tools rather than power tools to remove deteriorated mortar joints, under the direction of a skilled mason. .

1.10 When replacing damaged brick or stone, use replacements that match the original units as closely as possible in size, color, and texture.

1.11 Avoid painting masonry surfaces that were not painted historically.



Madison is distinguished by the hundreds of brick dwellings built in the city in the 19th century. They display a wide variety of bond types and mortar profiles (948 W. Second Street).

Technical Information

NPS Preservation Brief #1
Assessing Cleaning and Water Repellent Treatments for Historic Masonry Buildings
Www.nps.gov.history/hps/tps/briefs/brief1.htm

NPS Preservation Brief #2
Repointing Mortar Joints in Historic Masonry Buildings
Www.nps.gov.history/hps/tps/briefs/brief2.htm

NPS Preservation Brief #6
Dangers of Abrasive Cleaning to Historic Buildings
Www.nps.gov.history/hps/tps/briefs/brief6.htm

2.0 MATERIALS, CONCRETE AND STUCCO

POLICY

Keep original stucco and concrete surfaces in good repair. When patching or replacing surfaces, match the original texture of the stucco and concrete. The replacement of stucco with an Exterior Insulation Finishing System (EIFS) is inappropriate for historic dwellings since the material does not resemble stucco and is prone to water damage.

Rustic or rock-faced concrete block was used as a material for foundations and porch columns on some dwellings in the Landmark District (601 E. Main Street).

DESIGN STANDARDS FOR CONCRETE AND STUCCO

2.1 Retain and preserve historic concrete and stucco elements, including walls, chimneys, foundations, and retaining walls. Preserve these character-defining features of the building or property.

2.2 Maintain and protect historic concrete and stucco elements through appropriate maintenance, cleaning, and repair as needed.

2.3 Repair concrete walls and features using compatible materials and a stucco mix similar in strength, composition, texture, and color. Stucco added to deteriorated brick walls must allow the brick underneath to expand and contract to prevent further deterioration. The application of stucco as a repair to exposed masonry is not appropriate.

2.4 Replace in kind if deteriorated or damaged beyond repair.

2.5 Clean stucco and concrete using the most gentle means possible such as low-pressure water wash and a soft bristle brush.

2.6 Remove paint from stucco and concrete with appropriate chemical agents and professional contractors.

2.7 Do not remove historic stucco surfaces from masonry walls unless more than 50 percent of the stucco has lost its bond with the masonry behind it.

2.8 Original rock-faced or textured concrete block should be repaired with materials to match as closely as possible.

Rustic or rock-faced concrete block was used as an exterior wall material on a number of dwellings built in the early 1900s (523 Jefferson Street).

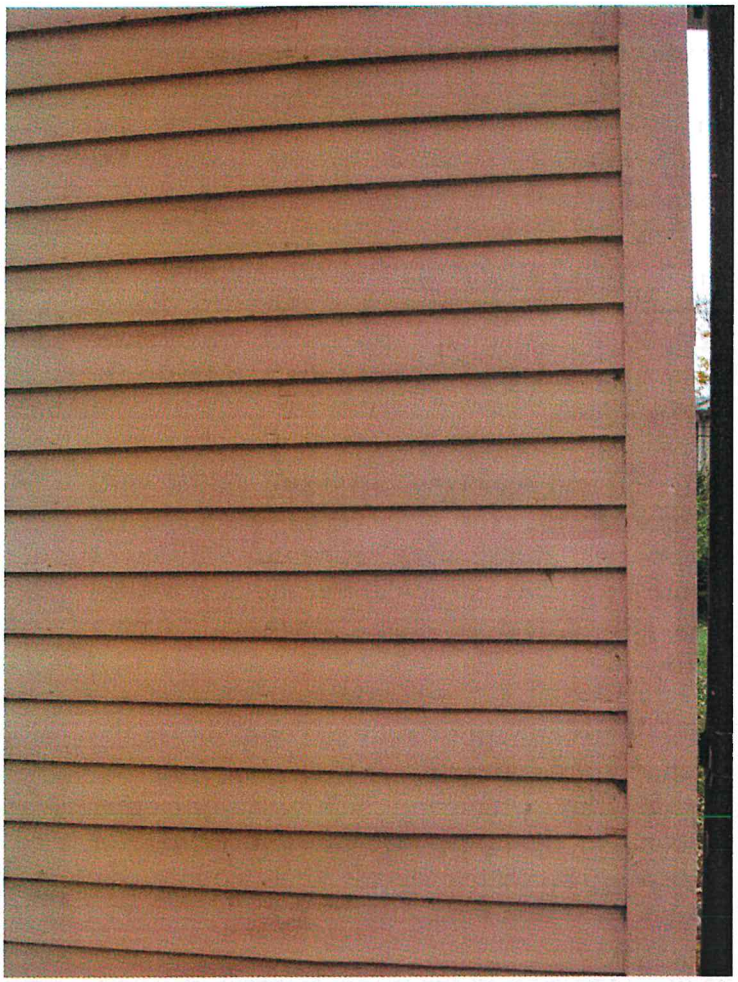
Technical Information
NPS Preservation Brief #15
Preservation of Historic Concrete
Www.nps.gov.history/hps/tps/briefs/brief15.htm

NPS Preservation Brief #22
Preservation and Repair of Historic Stucco
Www.nps.gov.history/hps/tps/briefs/brief22.htm

3.0 MATERIALS, WOOD SIDING AND SHINGLES

POLICY

Preserve and maintain original wood siding and shingle materials. If these features require replacement, select materials to match the original as closely as possible. For contributing buildings, alternative materials may be considered for non-visible elevations. For non-contributing buildings, any or all elevations may have alternative materials installed. It is not appropriate to cover or conceal original wood siding materials with vinyl, aluminum, or other synthetic sidings. These materials do not successfully imitate the appearance of historic original wood siding. These synthetic materials are poor imitations of original wood siding and also may cause condensation and damage to the original siding beneath. Asbestos shingle siding is not hazardous as long as it is kept encapsulated with paint. If asbestos shingles are to be removed, a professional contractor should be hired.



The weatherboard siding at 420 Broadway is typical of the wood siding craftsmanship found throughout the Landmark District.

DESIGN GUIDELINES FOR WOOD SIDING AND SHINGLES

3.1 Retain and preserve historic wood siding, shingles, trim, ornamentation, and other wood decorative elements.

3.2 Maintain existing original wood siding, shingles, trim, ornamentation, and other wood decorative elements.

3.3 Repair existing wood elements wherever possible. Use preservation techniques which encourage repair (such as epoxies, splicing, and patching where applicable) rather than wholesale replacement.

3.4 Replace historic wood elements only where the original is too deteriorated to repair. If replacement is necessary, use new replacement wood that matches the original as closely as possible in all properties: shape, profile, texture, exposure, and detailing. The deteriorated or damaged condition should be documented. Replacement in-kind does not normally require a COA.

3.5 If a portion of a historic wall is deteriorated beyond repair, replace only the damaged portion.

3.6 Prepare surfaces for painting using the gentlest means possible. Low-pressure washing (400 PSI or lower) should be used only after a test panel of washing has been performed by the contractor and reviewed by the owner for excessive damage.

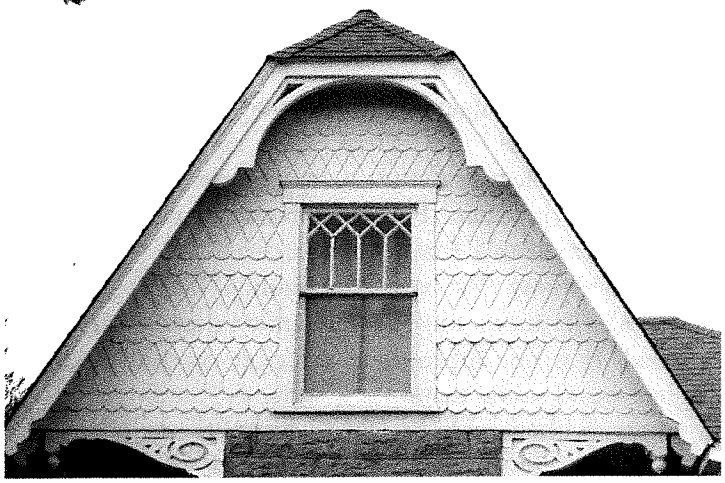
3.7 Avoid stripping paint with the object of staining it or leaving it unfinished for a supposedly "natural" appearance when such an appearance cannot be historically documented.

3.8 Avoid replacing clapboard siding with shingle siding (or vice versa) or replacing clapboard siding with siding of a different width or profile, particularly if the later siding has gained historic significance in its own right.

3.9 It is not appropriate to compromise the architectural integrity of a building by introducing or removing siding, trim or other decorative features, or by concealing or removing decorative details such as cornices, corner boards or brackets.

3.10 The use of imitation or pressed wood, vinyl, or aluminum siding or trim is not appropriate. The HDBR may allow the replacement of existing substitute siding with new substitute siding if the proposed replacement will be more in keeping with the original appearance of the structure. If later siding is removed and historic siding remains intact beneath the later siding, the historic siding should remain exposed.

3.11 The use of fiber cement (cementitious) siding may be approved for new structures, non-historic structures and additions to historic structures not visible from public streets or waterways.



Many dwellings feature decorative wood shingles in gables or as exterior wall materials (523 Jefferson Street).

Exterior wall wood materials may also include vertical board siding, half-timbering and other decorative designs (220 W. Second Street).

3.12 Avoid removing or replacing such features as cornices, brackets, pilasters, door and window moldings, pediments, medallions, dentil and modillion molding, corner boards, and other character-defining architectural trim, particularly from the principal façade

3.13 To avoid creating a false historical appearance, do not use trim salvaged from another building or buildings or stock trim. Likewise, avoid moving or rearranging existing trim to another part of a building without historical evidence to back this up. Do not use stock trim when original trim can be replicated.

3.14 Removal of asbestos shingle is appropriate if they were added over original wood siding. Restoration of original wood siding beneath added asbestos shingles is encouraged.

A number of dwellings in the Landmark Dstrict had the original wood siding covered with asbestos shingles in the mid-twentieth century (410 W. Second Street).

Removal of asbestos shingles and restoration of the original wood siding is encouraged.

<u>Technical Information</u>
NPS Preservation Brief #8
Aluminum and Vinyl Sidings on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings
Www.nps.gov.history/hps/tps/briefs/brief8.htm

Substitute Wood Siding Policy

New materials may be appropriate for use on houses in the Landmark District depending on the location of the new siding in relation to the street. Any substitute material siding must have the surface appearance, surface reflectivity, and finish of wood.

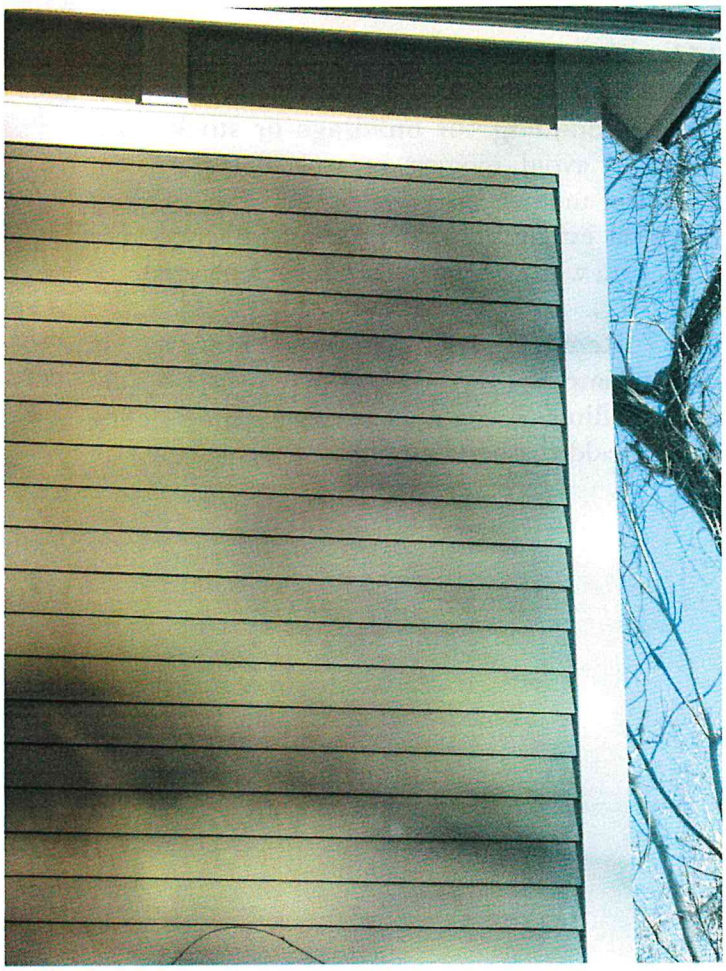
- The use of vinyl, aluminum, and pressed wood as a cosmetic cladding is not appropriate.

- The use of cementitious (fiber cement) siding may be approved for new structures, non-historic structures and additions to historic structures not visible from public streets or waterways. When cementitious material is used it must have the same thickness, texture, and exposure as the siding on the rest of the building. Cementitious siding may be used in areas that have been proven to be prone to excessive rotting.

- In the case of buildings and structures which have added vinyl, aluminum, or pressed wood cosmetic cladding, the historic siding materials should be retained if they are in good condition once these later siding materials are removed. The HDBR may allow for a change to another substitute siding (such as cementitious siding), if the proposed new siding is more in keeping with original appearance of the building or structure or the character of the district.

- The appearance, surface textures, details, and other key visual characteristics of most substitute sidings are not appropriate in the Landmark District.

- Vinyl, aluminum and pressed wood shall not be approved to cover or replace wood siding or brick structures that contribute to the character of the Landmark District, or on new structures



Cementitious siding may be an appropriate alternative siding material in some cases if it has the appearance of historic wood siding.

Why the HDBR Recommends Preserving Original Windows

- Windows are a significant part of the original fabric of historic structures. They provide important architectural qualities that define and characterize an architectural style and time period, as well as the scale of a building. The loss of windows alters the defining qualities of the historic building.

- Rebuilding historic wood windows and adding storm windows makes them as efficient as new windows and more than offsets the cost of installation. Several comprehensive window studies have found that a wood window with weatherstripping and an added storm window is as energy efficient as most new thermo-pane windows and lasts longer.

- The old-growth lumber used in historic window frames can last over one hundred years if well maintained, unlike new-growth wood, vinyl, or aluminum.

- In most cases, windows account for less than one-fourth of a home's energy loss. Insulating the attic, walls, and basement is a more economical approach to reducing energy costs than replacing historic windows.

- Any energy savings from replacing wood windows with aluminum or vinyl seldom justifies the costs of installation. For most buildings, it would take decades to recover the initial cost of installation, and with a life expectancy of ten to fifteen years or less, installing new vinyl or aluminum windows does not make economic sense.

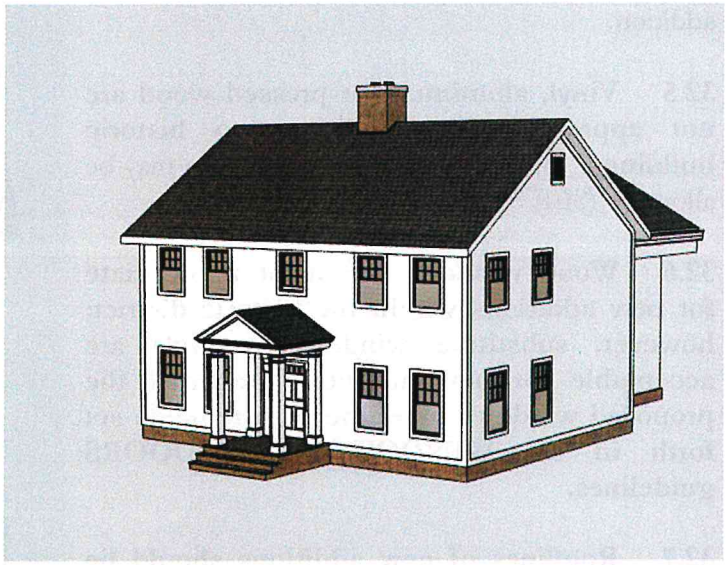
- According to a 2019 study by the National Association of Realtors installing new vinyl windows for the average home costs $22,000 but only increased the resale value by $16,500. Only 4% of realtors said the new windows helped to close the sale.

The majority of old-growth wood windows can be rebuilt and last indefinitely. This approach is more economical than the cost of replacement windows.

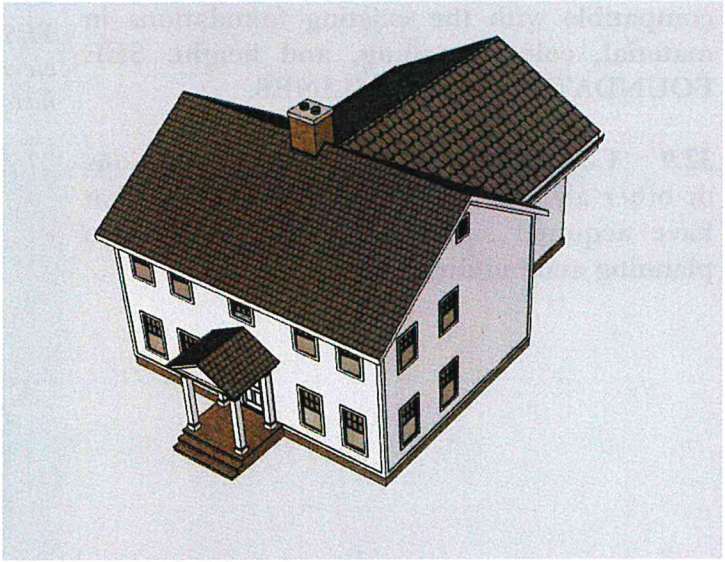
32.0 NEW CONSTRUCTION – ADDITIONS

POLICY

Additions are appropriate for historic dwellings at rear elevations or side elevations not readily visible from the street. Additions should be designed to have a minimal adverse affect to historic materials and be visually subordinate to the original dwelling. They should be secondary in size and scale to the footprint of the original dwelling and reinforce the visual dominance of the original structure. The addition should be distinguishable from the original dwelling while blending with the overall design. An addition should be designed and constructed in a manner that would allow its potential removal in the future with minimal effect to the historic structure. For non-contributing buildings there may be additional flexibility in the design and size of rear additions.



YES: *Additions should be secondary in scale and sited at rear elevations. They should be designed in traditional wing or ell plans and be distinguished from the historic dwelling.*



DESIGN STANDARDS FOR ADDITIONS

32.1 Where possible, locate new additions at the side or rear so that they have a minimal impact on the façade and other primary elevation of the affected building or adjacent properties.

32.2 The overall proportions of a new addition should be compatible with the existing building in height, scale, size, and massing so as not to over power it visually. A new addition should never be taller or wider than the original structure unless required by code or a non-aesthetic functional requirement. Observe the principle of "additive massing" where the original structure remains dominant and the additions are adjoining and smaller masses.

32.3 The design elements of a new addition should be compatible with the existing building in terms of materials, style, color, roof forms, massing proportion and spacing of doors and windows, details, surface texture, and location. Contemporary adaptations of the original which clearly look like an addition and reflect the period of construction are encouraged.

32.4 Additions should be constructed so that they can be removed from the original building in the future without irreversible damage to significant features. Additions should be set in at least one foot (1') to show a break between the original structure and the new addition.

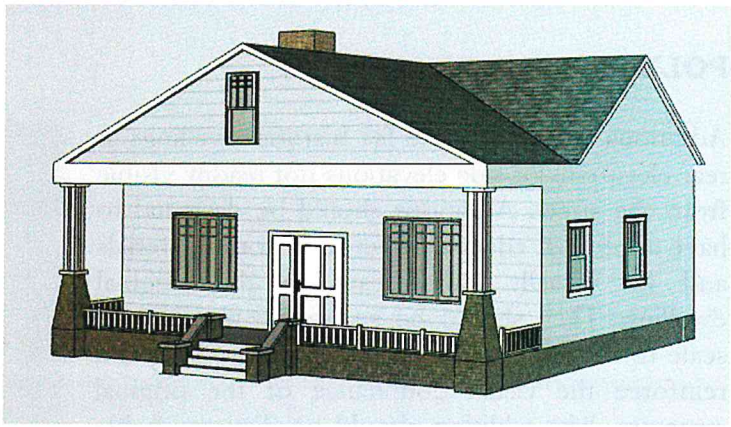
32.5 Vinyl, aluminum, or pressed wood are not appropriate on additions to historic buildings. Other substitute siding or trim may be allowed. (SEE SIDING GUIDELINES)

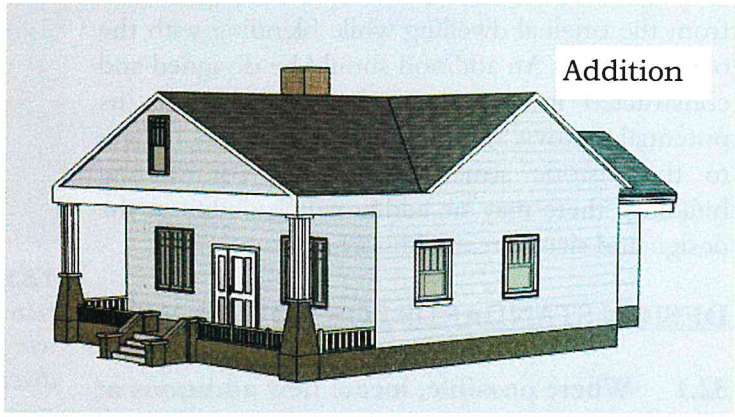
32.6 Wood windows are most appropriate for new additions within the historic district; however, substitute window materials are acceptable for new additions provided the proposed windows meet the requirements set forth in the WINDOWS AND DOORS guidelines.

32.7 Rooflines of new additions should be similar in form, pitch, and eave height to the roofline of the original building.

32.8 Foundations should be similar to or compatible with the existing foundations in material, color, detailing, and height. SEE FOUNDATIONS GUIDELINES.

32.9 Consider in your plan older additions or other alterations to existing buildings that have acquired significance over time when planning and building a new addition.





YES: *One-story additions should also be sited at rear elevations to maintain the scale, design and massing of the historic dwelling.*